UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

AUG 19 2010

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply To: OCE-084

David L. Wessman
TSCA Compliance Manager
U.S. Department of Energy
1955 Freemont Avenue, MS 1216
Idaho Falls, Idaho 83415

Re: Toxic Substances Control Act (TSCA) Risk-Based Disposal Approval for Treatment and Storage of PCB Bulk Product Waste from TRA-632 Hot Cell Building at the Idaho National Laboratory Site (OS-ETSD-10-111)

Dear Mr. Wessman:

This letter constitutes approval under the authority of 40 Code of Federal Regulations (C.F.R.) 761.62(c) to manage certain PCB bulk product waste destined for disposal at the United States Department of Energy Nevada Test Site (NTS). This approval is specific to the five containers identified in your June 30, 2010, application for a risk-based disposal approval (RBDA) (Reference 1), and is subject to conditions established below. Grouting or macro-encapsulation of these wastes which may be conducted pursuant to this approval is considered processing for disposal, and is within the definition of "disposal" at 40 C.F.R. 761.3, but are limited to activities necessary to qualify the wastes for transportation to and disposal at the NTS. This approval also authorizes on-site interim storage for disposal following grouting of these wastes and prior to shipment to the NTS. The rationale of the U.S. Environmental Protection Agency (EPA) for establishing these conditions is contained in the Statement of Basis appearing as Enclosure 2 of this letter.

This written decision for a risk-based method for processing for disposal and storage for disposal of PCB bulk product waste is based on the U.S. Department of Energy, Idaho Operations Office (DOE-ID) application for an RBDA dated June 30, 2010. In granting this approval, EPA finds that the proposed management of PCB bulk product waste destined for disposal at the NTS, subject to the conditions below, will not pose an unreasonable risk of injury to human health or to the environment. The conditions of this approval are enforceable under TSCA and implementing regulations 40 C.F.R. 761.62(c). Any actions by the DOE which violate the terms and conditions of this letter may result in administrative, civil, or criminal enforcement by EPA in accordance with Section 16 TSCA, 15 USC § 2615.

Conditions

1) This approval applies to PCB bulk product waste consisting of five containers in the TRA-632 Hot Cell building at the Idaho National Laboratory (INL), as documented in the RBDA application (Reference 1). This approval shall remain in effect for one year from its effective date. DOE-ID may request an extension to this one-year period if necessary to support final disposal of the wastes at the NTS.

2) DOE-ID is authorized to process for disposal via grouting/macro-encapsulation in the TRA-632 Hot Cell the PCB bulk product wastes identified in Condition 1 for purposes of achieving compliance with applicable waste acceptance criteria for the planned disposal unit, and applicable Department of Transportation shipping requirements. DOE-ID will conduct such activities as

documented in the RBDA Application (Reference 1), including but not limited to maintaining negative pressure through high-efficiency particulate air (HEPA) filters to control air emissions in the TRA-632 hot cell.

3) DOE-ID is authorized to store for disposal cured grouted monoliths prior to shipment to the NTS without secondary containment in an on-site 90-day Temporary Accumulation Area (TAA) provided such storage is authorized pursuant to and in compliance with the Idaho Hazardous Waste Management Act and implementing regulations. DOE-ID shall perform weekly inspections of cured grouted monoliths to verify the monolith/outer container integrity and the absence of any spills or releases. DOE-ID will maintain written documentation of such inspections, and retain inspection for one calendar year following removal of the wastes from an on-site 90-day TAA.

4) Nothing in this approval relieves DOE-ID of any obligations to comply with all other rules and regulations applicable to the activities subject to this approval, including but not limited to the requirements of the Idaho Hazardous Waste Management Act (HWMA) and implementing regulations, and the requirements of 10 C.F.R. Part 835 and DOE Order 5400.5.

5) If anytime before, during or after management of PCB bulk product waste under this approval, DOE-ID possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application for this risk-based disposal approval) indicating that activities approved herein may pose an unreasonable risk of injury to health or the environment, DOE-ID must report such data, via facsimile or e-mail to EPA within five working days, and in writing to the Regional Administrator within 30 calendar days, of first being made aware of that data. DOE-ID shall immediately cease all activities approved herein that may pose an unreasonable risk of injury to health or the environment. Such activities shall not resume until EPA provides written notification that the activities in question no longer pose an unreasonable risk of injury to health or the environment.

6) EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 5, or any other information available to EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. DOE-ID may request modification of this approval by providing written notice according to Condition 7. If EPA agrees with a request for modification, EPA will provide written approval to DOE-ID. Prior to obtaining written approval of a modification request, DOE-ID shall comply with the existing approval conditions.

7) Submissions required by this approval shall be provided to EPA as follows:

EPA: Edward J. Kowalski, Director
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With copies to: Dave Bartus
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Should you have any questions or comments, please contact Dave Bartus at (206) 553-2804, or Bartus.dave@epa.gov.

Sincerely,

Edward J. Kowalski
Director

Enclosure

cc: Dennis Faulk, EPA HPO
Zach Hedgepeth, EPA
Natalie Clough, IDEQ
Kelly Wright, Shoshone-Bannock Tribe

Enclosure 1

Supporting Documentation

Toxic Substances Control Act (TSCA) Risk-Based Disposal Approval for Treatment and Storage of PCB Bulk Product Waste from TRA-632 Hot Cell Building at the Idaho National Laboratory Site

1) Letter, David L. Wessman, TSCA Compliance Manager, Department of Energy, Idaho Operations Office, to Dennis McLerran, Regional Administrator, United States Environmental Protection Agency, Region 10, "Toxic Substances Control Act (TSCA) Risk-Based Disposal Approval for Treatment and Storage of PCB Bulk Product Waste from TRA-632 Hot Cell Building at the Idaho National Laboratory Site (OS-ETSD-10-111)," dated June 30, 2010

Enclosure 2

Statement of Basis

Background

This risk-based disposal approval addresses polychlorinated biphenyl (PCB) bulk product wastes that was previously generated from decontamination activities during operations associated with the TRA-632 Hot Cell building at the Advanced Test Reactor (ATR) Complex facility area at the Idaho National Laboratory (INL) Site. The waste covered by this approval includes vacuum bag filters and in-line vacuum filters that are contaminated with dried paint chips containing PCBs at concentrations greater than 50 parts per million (ppm). The waste was generated from the decontamination of the TRA-632 Hot Cell which involved the use of a remote vacuum system.

EPA's Evaluation of DOE-ID's Risk-Based Disposal Approval Application

Wastes Proposed for Treatment

As noted above, the wastes associated with this approval consist of vacuum bag and in-line filters contaminated with dried paint chips containing PCBs greater than 50 parts per million (ppm). These wastes are considered PCB bulk product waste under the Toxic Substances Control Act (TSCA) and implementing regulations at 40 Code of Federal Regulations (C.F.R.) Part 761. DOE-ID's application does not provide any documentation that these PCBs were from a spill or release of PCBs, which would provide a basis to manage the paint chips as PCB remediation waste instead of PCB bulk product waste. Further, EPA has established that dried paint is bulk PCB product waste whether or not the paint has been removed from the surface to which it was applied (See Question 2 under "§761.50(b)(4) PCB bulk product waste" in "January 2009 Version Revisions to the PCB Q and A Manual," at http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/qacombined.pdf.

These wastes also designate as D008 toxicity characteristic wastes under the Idaho Hazardous Waste Management Act (HWMA) and implementing regulations. The waste is managed as mixed (hazardous and radioactive) debris, and subject to the hazardous debris Land Disposal Restriction (LDR) alternate treatment standards for hazardous debris at 40 C.F.R. 268.2, incorporated by reference by IDAPA 58.01.05.011. The radiological dose associated with these wastes range from 4.6 to 1,000 Roentgen/hour (R/hr).

The wastes are containerized as follows:

- 2 in-line filters (approximately 8" x 19.5"), approximately 0.6 cubic feet each
- 1 stove pipe (approximately 7" x 22"), approximately 0.5 cubic feet
- 1 paint can (approximately 6.5" x 7.5"), approximately 0.1 cubic feet
- 1 vacuum bag filter (approximately 6.5" x 7.5"), approximately 0.1 cubic feet.

The first four waste containers are being stored in a HWMA Satellite Accumulation Area (SAA). The fifth container is being stored in an on-site Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) storage area located at the ATR Complex facility.

Disposal Unit Waste Acceptance Criteria Compliance

DOE-ID intends to dispose of the treated wastes addressed by this approval in a hazardous waste Treatment, Storage and Disposal facility (TSDF) located at the Nevada Test Site (NTS), permitted by the Nevada Division of Environmental Protection. As documented by DOE-ID in the RBDA application, the National Nuclear Security Administration Nevada Site Office has approved the pre-treatment notification for this mixed hazardous and radioactive PCB waste stream, which includes ensuring that the treated wastes meet the waste acceptance criteria of the NDEP-issued hazardous waste permit. With respect to the PCB component of these "PCB/radioactive" wastes, final disposal will be according to the provisions of 40 C.F.R. 761.50(b)(7).

Since the scope of this RBDA is limited to processing for disposal and subsequent storage for disposal at the INL, EPA is not independently reviewing or opining on DOE-ID's compliance with NTS disposal requirements. Further, most if not all of these requirements are outside the scope of requirements in 40 C.F.R. Part 761. However, it would be difficult to demonstrate compliance with the TSCA no unreasonable risk standard by granting an RBDA approval that might result in a processed waste without a disposal pathway. This concern is addressed through Condition 2 of the approval, which states that the purpose of the authorized processing for disposal is satisfaction of applicable NTS waste acceptance criteria and Department of Transportation requirements. EPA notes that DOE-ID has provided a reasonable demonstration that PCB bulk product waste subject to this approval will be acceptable for transport and disposal. EPA is accepting this demonstration as the basis in part for this RBDA approval.

As noted in the RBDA application, treatment via macro-encapsulation will be performed as a means to demonstrate compliance with RCRA waste acceptance criteria and land disposal restriction treatment standards pursuant to the NTS RCRA permit, EPA/State ID No. NV3 89009 0001. While this treatment or method of treatment is not a TSCA requirement, it does constitute processing for disposal that requires authorization under TSCA. Similarly, storage prior to and after processing for disposal constitutes storage for disposal, again subject to the requirement for authorization under TSCA. Both of these requirements for TSCA authorization are fully satisfied by this RBDA. EPA notes that EPA is not exercising TSCA authority to require cleanup or removal of PCB bulk product waste, as this work is already associated with decommissioning of the TRA-632 Hot Cells under CERCLA authority.

Discussion of EPA's approach to evaluating the risk of injury to human health and the environment for Processing for Disposal and Storage for Disposal Activities

The storage and processing for disposal activities subject to this approval are relatively straight-forward, in that none of them involve elevated temperatures, or thermal treatment that could increase the chances of injury to human health or the environment. The authorized processing for disposal does involve liquids, in the form of flowable grout that will be used for macro-encapsulation. EPA has considered the following factors in evaluating the risk of injury to human health and the environment by the approved activities:

- The risk of air dispersal of PCBs during grouting/macro-encapsulation;
- The risk of releases of liquids from waste containers during grouting and during curing;
- The risk of storing processed wastes pending transport off-site.

DOE-ID notes that high radiation levels associated with these wastes will require stringent radiological contamination controls and remote operation within the TRA-632 building hot cell during processing for disposal activities. Radiological controls include maintaining negative pressure through high-efficiency particulate air (HEPA) filters to control air emissions. HEPA filtration will provide effective controls for any particulate PCB air emissions that may occur during grout placement. Remote operations ensure that workers or the environment will not be exposed to any PCBs during grouting.

Once macro-encapsulated, there is little possibility of any spill or release of PCB bulk product waste so no specific management standards are needed to ensure satisfaction of the TSCA no unreasonable risk

standard during storage for disposal other than those otherwise in place under Idaho's hazardous waste program. In the RBDA application, DOE-ID requests authorization to store the grouted monoliths in a RCRA 90-day Temporary Accumulation Area (TAA). If storage beyond 90 days is necessary, these containers will be transported to a RCRA permitted TSDF either on- of off-site until NTS approval for shipment and disposal is obtained. EPA is authorizing on-site storage without secondary containment for disposal for up to 90 days in a RCRA TAA. EPA is not providing authorization in an on-site RCRA Permitted TSDF, as 40 C.F.R. 761.65 already provides authorization to store PCBs for disposal in units permitted by a state authorized under Section 3006 of RCRA [See 40 C.F.R. 761.65(b)(2)(iii)]. EPA is not providing any authorization under this approval for any off-site storage for disposal of the wastes in question. If DOE-ID wishes to store wastes managed under this RBDA at an off-site location, it may do so according to provisions of 40 C.F.R. §761.65 which may apply to the off-site location, or seek a separate risk-based storage approval for that location.

EPA has included Condition 4, which notes that this approval does not relieve DOE-ID of the obligation to comply with other rules and regulations applicable to the activities subject to this approval.

Spills or Releases from Processing for Disposal and Storage for Disposal Activities

Since PCB bulk product waste subject to this approval does not contain free liquids and is in a non-flowing solid form, there is little if any potential for spills or releases during storage or processing for disposal activities subject to this approval. Other than the requirements discussed above, no other preventive or remedial requirements for potential spills or releases from activities subject to this approval are necessary to ensure no unreasonable risk of injury to human health or the environment.

EPA is not imposing any reporting or recordkeeping requirements in this approval under TSCA with regard to processing for disposal under this approval. Normally, such requirements would be advisable to ensure that any sorts of systematic issues that might result in spills or releases could be addressed, and that records of spills/releases would be available at the time of final disposition of equipment. In this instance, however, EPA believes that there is little need for such a requirement, since the radiological nature of the wastes being managed means that ALARA principles will ensure that spills/releases are quickly and effectively cleaned up. In the unlikely event that spills or releases should occur, they would be reportable under Condition 5 of this approval.

Treatment System Disposition and/or Decontamination

All processing for disposal activities under this approval will occur within containers that will be integral to the waste when disposed. No equipment that could be in contact with PCBs during grouting that will remain following grouting and that would require decontamination. Further, the hot cells in which grouting will occur are subject to decommissioning under CERCLA authority. Therefore, EPA has determined that it is not necessary to include any disposition or decontamination requirements in this approval related to areas in which processing for disposal will take place to ensure that processing for disposal does not pose an unreasonable risk of injury to health or the environment.

The grouted waste form, when placed in an additional outer container as documented in the RBDA application, is unlikely to result in any spills or releases during storage for disposal. Since storage for disposal will occur in units subject to the Idaho Hazardous Waste Management Act (HWMA) and implementing regulations, additional disposition and/or decontamination requirements applicable to storage for disposal activities under this approval are not necessary to ensure that storage for disposal does not pose an unreasonable risk of injury to health or the environment.

Discussion of Conditions

The DOE must comply with all conditions outlined in this approved RBDA which includes:

1) This approval applies to PCB bulk product waste consisting of five containers in the TRA-632 Hot Cell building at the Idaho National Laboratory (INL), as documented in the RBDA application (Reference 1). This approval shall remain in effect for one year from its effective date. DOE-ID may request an extension to this one-year period if necessary to support final disposal of the wastes at the NTS.

This condition establishes the scope and duration of the approval. DOE-ID states in the RBDA application that the maximum length of time these wastes will be stored on-site following grouting will be 240 days. The one year time limit should be adequate for completion of the authorized activities, but EPA is including a provision for an extension should additional time be legitimately needed for completion of the authorized activities.

This condition provides the actual authorization to conduct storage and processing for disposal activities, establishes the overall performance requirement of meeting NTS waste acceptance criteria and DOT transportation requirements.

2) DOE-ID is authorized to process for disposal via grouting/macro-encapsulation in the TRA-632 Hot Cell the PCB bulk product wastes identified in Condition 1 for purposes of achieving compliance with applicable waste acceptance criteria for the planned disposal unit, and applicable Department of Transportation shipping requirements. DOE-ID will conduct such activities as documented in the RBDA Application (Reference 1), including but not limited to maintaining negative pressure through high-efficiency particulate air (HEPA) filters to control air emissions in the TRA-632 hot cell.

This condition provides authorization for processing for disposal, and ensures the cited activities are conducted in a manner which satisfies the TSCA no unreasonable risk standard in full integration with other applicable regulatory requirements.

3) DOE-ID is authorized to store for disposal cured grouted monoliths prior to shipment to the NTS without secondary containment in an on-site 90-day Temporary Accumulation Area (TAA) provided such storage is authorized pursuant to and in compliance with the Idaho Hazardous Waste Management Act and implementing regulations. DOE-ID shall perform weekly inspections of cured grouted monoliths to verify the monolith/outer container integrity and the absence of any spills or releases. DOE-ID will maintain written documentation of such inspections, and retain inspection records for one calendar year following removal of the wastes from an on-site 90-day TAA.

This condition provides authorization for storage for disposal of treated wastes. As discussed above, this authorization is specific to storage for disposal in an on-site 90-day Temporary Accumulation Area (TAA). DOE-ID may also store these wastes for disposal in on-site permitted RCRA storage units under the authority of 40 C.F.R. 761.65(b)(2)(iii).

4) Nothing in this approval relieves DOE-ID of any obligations to comply with all other rules and regulations applicable to the activities subject to this approval, including but not limited to the requirements of the Idaho Hazardous Waste Management Act (HWMA) and implementing regulations, and the requirements of 10 C.F.R. Part 835 and DOE Order 5400.5.

Activities authorized by this approval are subject to numerous considerations, not all of which are subject to TSCA authority. This condition reflects EPA's acknowledgement that success and environmental performance must reflect compliance with all applicable requirements. EPA is not asserting TSCA jurisdiction over the radionuclide component of wastes or activities subject to this approval. Rather, EPA is accepting under TSCA authority that the provisions of these regulations will prevent exposure of workers, the public and the environment to PCB bulk product waste as necessary to ensure satisfaction of the TSCA no unreasonable risk standard.

5) If anytime before during or after management of PCB bulk product waste under this approval, DOE-ID possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in this RBDA application) indicating that activities approved herein may pose an unreasonable risk of injury to health or the environment, DOE-ID must report such data, via facsimile or e-mail to EPA within five working days, and in writing to the Regional Administrator within 30 calendar days, of first being made aware of that data. DOE-ID shall also report new or different information related to a condition at any element of the processing for disposal or storage activities if the information is relevant to this approval. DOE-ID shall immediately cease all activities approved herein that may pose an unreasonable risk of injury to health or the environment. Such activities shall not resume until EPA provides written notification that the activities in question no longer pose an unreasonable risk of injury to health or the environment.

The purpose of this condition is to ensure that information relevant to EPA's finding of no unreasonable risk of injury to health and the environment remains up-to-date throughout the duration of this approval, and that activities conducted pursuant to the approval demonstrate compliance with this standard. .

6) EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 5, or any other information available to EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. DOE-ID may request modification of this approval by providing written notice according to Condition 7. If EPA accepts a request for modification, EPA will provide written approval to DOE-ID. Prior to obtaining written approval of a modification request, DOE-ID shall comply with the existing approval conditions.

The purpose of these conditions is to ensure that all activities for the duration of processing for disposal or storage activities continue to pose no unreasonable risk of injury to health or the environment, and that EPA is assured of receiving the necessary supporting information. While this approval reflects EPA's findings that the proposed activities satisfy the requirements of 40 C.F.R. 761.62(c) based on the information cited in the Statement of Basis, EPA also recognizes that the unique nature of activities covered by this authorization make it very possible that new information will be available that warrant explicit EPA evaluation and/or response. This condition ensures EPA's ability to respond appropriately.

7) Submissions required by this approval shall be provided to EPA as follows:

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This condition is generally self-explanatory. EPA is including IDEQ to be copied on correspondence since work subject to this approval is also subject to requirements of Idaho's Hazardous Waste Management Act program.